Skills That Matter: Job Competence in Agricultural Advisory Professionals: A Correlational Study In Cotton Zone, Punjab, Pakistan

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ABSTRACT

Agricultural extension services play a pivotal role in bridging the gap between research institutions and farming communities. The effectiveness of these services largely depends on the job competence of field-level professionals who provide advisory and technical support to farmers. Competence in this context includes a range of skills such as communication, empathy, judgment, technical knowledge, and initiative. This study was conducted to assess the job competence of Agricultural Advisory Professionals (AAPs) working in selected districts of the Cotton Zone of Punjab, Pakistan. Recognizing the critical role these professionals play in delivering agricultural extension services, the research sought to evaluate their competency levels across key skill dimensions. A total of 140 AAPs were selected using a stratified random sampling technique. Data was collected through a structured questionnaire comprising 30 items categorized into five major competence dimensions: communicative ability, initiative, empathy, technical knowledge, and judgment. Two assessment techniques—self-rating and supervisor-based rating—were used to evaluate job competence, with responses rated on a five-point Likert scale. Descriptive statistics and cross-tabulation techniques were employed for data analysis. Results revealed that 60.84% of AAPs rated themselves at a medium competence level, while 62.50% received the same rating from their supervisors, with an overall medium competence level found in 70% of respondents. Self-ratings indicated higher competence in communicative ability, initiative, empathy, and technical knowledge, whereas supervisor ratings highlighted strengths in initiative, communication, empathy, and judgment. The study recommends the implementation of targeted capacity-building programs, performance appraisal systems, mentorship initiatives, and regular feedback mechanisms to enhance the professional effectiveness of AAPs in agricultural extension services.

Keywords: *Agricultural Advisory Professionals, job competence, extension services, self-rating, supervisor rating, competence dimensions, Punjab Pakistan, agricultural training, capacity building.*

INTRODUCTION

Human resource management is critical in preparing Agricultural Advisory Professionals (AAPs) to meet the agriculture sector's rapidly changing demands, particularly in rural areas. These professionals are at the forefront of agricultural extension services, carrying out novel innovations, providing guidance for farmers, and promoting the growth of rural areas. The rural agriculture industry is changing dramatically as a result of improvements in technology, shifting agricultural practices, demographic changes, economic transformations, and evolving government policies. As a result, there is an immediate need for highly skilled and adaptable extension personnel who are capable of handling all of these obstacles.

To address these challenges, agricultural universities and training institutions play an important role in developing the skills of AAPs. They offer comprehensive training programs aimed at improving the job competence of these professionals. Agricultural Advisory Professionals must be competent in communication, technical knowledge, judgement, and empathy in order to effectively support farming communities. In this context, human resource management strategies in agricultural extension services become critical to ensuring that AAPs are adequately prepared to meet the current and future needs of rural agriculture.

In response to these challenges, agricultural universities and training institutions play critical roles in developing the skills of AAPs. They offer comprehensive training programs to help these professionals improve their job skills. Agricultural Advisory Professionals must be competent in areas such as communication, technical knowledge, judgement, and empathy in order to effectively support farming communities. In this context, human resource management strategies in agricultural extension services become critical to ensuring that AAPs are well-prepared to meet both current and future rural agricultural needs.

These officers are expected to have not just technical expertise, but additionally the ability to communicate, motivate, and empathize with farmers in a variety of rural settings (Garforth et al., 2003). Professional competence—which includes both technical expertise and soft skills such as communication, empathy, initiative, and judgment—is critical to extension personnel's overall performance and impact (Rivera & Sulaiman, 2009; Davis, 2008). Without a high level of competence, agricultural extension's ability to drive innovation adoption and rural development remains significantly limited. The rapidly evolving agricultural landscape—driven by technological advancements, climate variability, and market dynamics—demands a highly competent extension workforce capable of responding effectively to rural challenges (Davis, 2008). Competence in this setting encompasses not only technical knowledge but also interpersonal skills such as communication, empathy, initiative, and sound judgment. These attributes are essential for facilitating farmer engagement, encouraging innovation adoption, and ensuring sustainable agricultural development (Garforth et al., 2003; Rivera & Sulaiman, 2009).

Given the strategic role of AAPs in transforming rural livelihoods, assessing and enhancing their job competence remains a key priority for policy makers, training institutions, and agricultural departments.

JOB COMPETENCE

Job competence is broadly defined as the combination of knowledge, skills, abilities, and personal attributes that an individual must possess to effectively perform the tasks and responsibilities associated with a specific role (Boyatzis, 1982; Spencer & Spencer, 1993). It reflects an individual's capacity to apply theoretical understanding and practical skills in real-world contexts to achieve desired work outcomes. In the context of human resource management (HRM), job competence serves as a foundational concept for performance management, recruitment, training, and career development strategies (Sanghi, 2016). Effective HR systems prioritize competency-based frameworks to align individual capabilities with organizational goals, ensuring the placement of the right personnel in the right positions and enhancing organizational efficiency and adaptability.

From an organizational perspective, clearly defined competencies enable better identification of skill gaps, facilitate targeted training programs, and promote succession planning. Competence frameworks also help in clarifying performance expectations and evaluating employee output based on standardized criteria (Lucia & Lepsinger, 1999). When employees are well-matched to their roles based on core competencies, they tend to exhibit higher productivity, improved job satisfaction, and enhanced timeliness in task completion.

In the agricultural sector, particularly within the extension system, job competence takes on added significance due to the dynamic and field-based nature of the work. Agricultural Advisory Professionals (AAPs) play a central role in facilitating knowledge transfer from research institutions to farming communities. Their effectiveness depends not only on their technical expertise but also on a range of behavioral and cognitive competencies, including communication, empathy, problem-solving, adaptability, and decision-making (Davis, 2008; Garforth et al., 2003). These competencies allow extension personnel

to build trust with farmers, understand local contexts, and promote the adoption of innovative agricultural practices.

To enhance the job competence of AAPs, it is essential to assess their current competency levels and identify the socio-demographic, institutional, and experiential factors that influence their professional development. As emphasized by Rivera and Sulaiman (2009), defining competency standards specific to agricultural extension helps in setting performance benchmarks and guiding capacity-building efforts. Moreover, identifying and measuring these competencies helps align extension officers with the strategic objectives of agricultural development programs and improves the overall performance of the extension system.

However, the enhancement of job competence remains a challenging endeavor when employees are not fully aware of their existing competence levels. Research in HRM emphasizes that self-awareness of professional strengths and limitations is a prerequisite for meaningful performance improvement (Boyatzis, 1982; Lucia & Lepsinger, 1999). In the context of agricultural extension, this insight is particularly important, as the role demands continuous learning and adaptability in response to technological advancements, policy changes, and farmer needs (Rivera & Sulaiman, 2009; Davis, 2008).

Without systematic feedback mechanisms or clearly defined benchmarks, AAPs may struggle to identify the specific areas where development is needed. This lack of clarity can impede both individual growth and institutional effectiveness. Therefore, a robust competence assessment system—grounded in HRM theory and adapted to the field realities of agricultural extension—is essential to guide targeted capacity-building initiatives and foster a high-performing extension workforce.

Agricultural Advisory Professionals (AAPs) are the frontline workers in the agricultural industry, working at the grassroots level to interact directly with farming communities. Their main objective is to help farmers make informed agricultural decisions by facilitating the transfer of improved technologies, disseminating scientific knowledge, and providing advisory services tailored to local needs (Davis, 2008; Garforth et al., 2003). Given the constantly changing character of agricultural systems, which are influenced by the environment, technologically, and economic factors, AEOs must have an outstanding level of job competence that includes both technical expertise and interpersonal effectiveness.

Competent extension personnel play a critical role in increasing farm productivity, encouraging innovation adoption, and ultimately improving rural livelihoods. This competency must include not only agronomic knowledge, but also communication skills, problem-solving abilities, empathy, and adaptability, all of which are necessary for building trust and collaboration with farmers (Rivera & Sulaiman, 2009). As a result, providing AEOs with comprehensive, role-specific competencies is not only important for professional efficiency, but also for the success of local agricultural development initiatives.

LITERATURE REVIEW: Job Competence of Agricultural Extension and Advisory Professionals

1. International-Level Studies

The role of agricultural extension officers has changed dramatically around the world as agricultural technologies have advanced and there has been a greater emphasis on participatory development. Boyatzis (1982) and Spencer and Spencer (1993) developed foundational models for job competence, emphasizing behavioral and functional competencies that are essential for job performance. Davis (2008), in a comprehensive study across Sub-Saharan Africa, lay emphasis on the importance of communication skills, technical expertise, and adaptability among extension agents in meeting the needs of modern agriculture.

Garforth et al. (2003) highlighted the importance of ongoing learning, interpersonal competence, and diagnostic skills in responding to local farming challenges. Similarly, Rivera and Sulaiman (2009) stressed extension reform as a key to improving the skill base of extension personnel, recommending policy support for systematic capacity development. A study conducted by Qamar (2005) for the FAO highlighted the importance of a competency-based approach to improving rural advisory services worldwide.

2. Regional Level (South and Southeast Asia)

In South Asia, extension systems are frequently chastised for their inefficiency, which is frequently attributed to inadequate resources and ambiguous responsibilities. Swanson and Rajalahti (2010) discovered that extension personnel in South Asia lacked structured training and competency assessment frameworks. In India, Meena et al. (2012) and Jha and Singh (2016) emphasized the importance of professional training and communication skills in improving performance on the job.

Karim et al. (2018) investigated the professional and behavioral capabilities of extension workers in Bangladesh and discovered significant gaps in communication, ICT use, and group facilitation. Joshi (2019) found that while Nepal's extension services are expanding as a result of local management improvements, technical and decision-making competence remains problematic.

3. National-Level (Pakistan)

In Pakistan, the agricultural extension system is run by provincial departments, with significant variation in capacity and performance. According to Aslam et al. (2015), inadequate training, outdated knowledge, and poor communication skills impede effectiveness. According to Qamar (2012), systemic issues such as a lack of monitoring and limited performance-based rewards frequently have an impact on job competence among extension workers. At the national level, Aslam et al. (2015) discovered that outdated training curricula and widespread knowledge gaps were common across provinces, accenting the need for systematic reforms in agricultural extension services to strengthen field personnel capacity.Zahid et al. (2021) conducted an evaluation in Punjab and found that extension officers demonstrated moderate competence in technical domains but received inconsistent professional development support. The Planning Commission of Pakistan (2020) emphasized the need to update extension training curricula to reflect current farming challenges and technology needs.

4. Provincial-Level Studies (Punjab, Sindh, Khyber Pakhtunkhwa, Balochistan)

Multiple investigations in Punjab have evaluated the competencies of agricultural extension officers, identifying both strengths and critical gaps. Ahmad et al. (2020) investigated officers' capabilities in cotton-growing districts, discovering moderate competence in pest management and communication but a significant lack of ICT-related skills. Hussain and Iqbal (2019) echoed these findings, attributing the deficiencies to a lack of organizational support. Zahid et al. (2021) reinforced this observation by highlighting agronomic knowledge gaps and ineffective extension delivery mechanisms. In recent years, a number of studies have stressed the critical need for tailored training strategies.

Magsi et al. (2024) and Riaz et al. (2025) identified flaws in participatory extension methods, agricultural supervision, and digital communication. Khan et al. (2024) found a lack of systematic evaluations for in-service training requirements, implying that without tailored training, professional development stagnates. Mirani et al. (2025) concluded that comprehensive in-service training improves not only expertise and abilities but additionally behaviors.

Furthermore, Khooharo et al. (2025) pointed out the importance of training evaluation and needs assessment in improving the competence of professionals, whereas Kumbhar et al. (2025) stressed the importance of strengthening agronomic expertise and preparing extension agents to effectively address climate-related challenges.

Shaikh et al. (2017) found that extension officers in Sindh lacked technical skills in water management and crop protection, despite being relatively effective in communication and field-level interactions. Khan et al. (2016) found that while extension workers in Khyber Pakhtunkhwa were active and engaged in the field, they lacked training in climate-resilient agricultural practices and demonstrated poor problem-solving abilities, limiting their effectiveness in adaptive extension. Jan and Shah (2018) identified even more critical challenges in Baluchistan, citing low technical competence among extension personnel as a result of severe resource constraints, insufficient field exposure, and a lack of refresher training opportunities.

5. Thematic Categorization: Types of Competence

A. Technical Competence

An APP's technical competence includes their knowledge of agronomic practices, pest and disease management, input application, and the effective dissemination of scientific farming techniques in rural communities. This core competence is required for the successful implementation of agricultural innovations and increased farm productivity. Numerous studies conducted in Pakistan (Ahmad et al., 2020; Zahid et al., 2021) and abroad (Davis, 2008; Garforth et al., 2003) have found that the absence of regular, up-to-date technical training significantly impairs the performance of extension personnel. Recent research in Punjab, Pakistan, has highlighted the critical need for targeted training to improve technical competence. For example, Magsi et al. (2024) and Riaz et al. (2025) identified training gaps in participatory extension approaches, agricultural supervision, and digital communication, all of which are critical for effective knowledge transfer. Khan et al. (2024) emphasized the importance of conducting systematic assessments of professional and technical in-service training needs, stating that such evaluations are critical for tailoring capacity-building programs. Mirani et al. (2025) demonstrated that well-structured in-service training improves knowledge acquisition and skill development while also positively influencing extension officers' attitudes. In a similar way Khooharo et al. (2025) investigated training needs with a focus on evaluation and professional development, whereas Kumbhar et al. (2025) emphasized the importance of improving agronomic skills and climate-resilient extension practices to improve technical service delivery. Overall, these studies highlight the critical role of technical competence in improving the performance and effectiveness of agricultural extension systems.

B. Professional (Soft Skills) Competence

Communication, leadership, empathy, decision-making, and problem-solving skills are all examples of professional competencies. These are critical for establishing trust with farmers and influencing behavioral change. Spencer and Spencer (1993) , Karim et al. (2018) Khan et al. (2024) and (Riaz et al., 2025) emphasize that these competencies are just as important as technical know-how.

Tabulated Summary of Literature Review

Author(s)	Year	Region	Focus	Key Competency Themes
Boyatzis	1982	International	Managerial competence models	Behavioral, cognitive

Davis	2008	Sub-Saharan Africa	Extension systems' effectiveness	Communication, adaptability, technical
Rivera & Sulaiman	2009	Global	Extension reform	Policy, training, performance evaluation
Karim et al.	2018	Bangladesh	Functional and behavioral competence	Communication, ICT, facilitation
Jha & Singh	2016	India	Extension training needs	Communication, field interaction
Aslam et al.	2015	Pakistan (National)	Capacity of extension personnel	Knowledge gaps, outdated training
Zahid et al.	2021	Punjab, Pakistan	Technical competence	Agronomic skills, extension delivery
Shaikh et al.	2017	Sindh, Pakistan	Performance of field officers	Water management, communication
Khan et al.	2016	Khyber Pakhtunkhwa	Extension capacity	Fieldwork, climate-resilience, training
Jan & Shah	2018	Baluchistan, Pakistan	Extension service challenges	Low competence due to poor resources
Magsi et al.	2024	Punjab, Pakistan	Extension training needs	Agricultural Extension, Supervision, Participatory Extension Approaches, Digital Communication in Agriculture
Riaz et al.	2025	Punjab, Pakistan	Extension training needs	Agricultural Extension, Supervision, Participatory Extension Approaches, Digital Communication in Agriculture, Professional Development
Khan et al.	2024	Punjab, Pakistan	Extension training needs	Professional And Technical In-Service Training Needs Assessment
(Mirani et al.	2025	Punjab, Pakistan	Extension capacity	In-Service Training, Knowledge Acquisition, Skill Enhancement, and Attitudinal Shifts
Khooharo et al.	2025	Punjab, Pakistan	Extension capacity	Evaluation, Training Needs, Agriculture, Professional Development
Kumbhar et al.	2025	Punjab, Pakistan	Technical competence	Agronomic skills, extension delivery,Climate Change

STATEMENT OF THE PROBLEM

Agricultural Advisory Professionals (AAPs) act as a vital link between research institutions and farming communities, disseminating agricultural technologies, providing advisory services, and increasing farmer capacity. However, in many developing countries, including Pakistan, the performance and effectiveness of extension services remain subpar due to varying levels of job competence among extension personnel. Despite the strategic significance of extension services in improving agricultural output and rural development, there is little empirical knowledge regarding AAP competence levels, particularly across regions and within specific competency domains such as technical and professional skills.

In provinces such as Punjab, where agriculture is a key economic driver, inconsistency among Agricultural Advisory Professionals may impede the successful adoption of modern agricultural practices, affecting overall farm productivity and food security. Furthermore, the lack of structured performance evaluation systems, ongoing professional development programs, and clear competency standards exacerbates the situation.

There is an urgent need to assess, categorize, and comprehend the competence levels of AAPs, identify influencing factors, and provide a framework for improving their performance. This study aims to evaluate the competence levels of AAPs across selected districts in Punjab, Pakistan, while exploring the influence of various socio-professional factors on their performance. Resulting in more informed human resource planning and policymaking in the agricultural sector.

THEORETICAL FRAMEWORK

The study draws upon two foundational theories:

1. Human Capital Theory (Becker, 1964)

According to this theory, investing in education, training, and skill development increases individuals' productivity. When applied to this study, the theory emphasizes the importance of improving APP competencies through structured training, continuous learning, and capacity-building initiatives to improve agricultural service delivery.

2. Competency-Based Theory (Boyatzis, 1982; Spencer & Spencer, 1993)

This theory defines competence as a set of observable and quantifiable knowledge, skills, abilities, and personal characteristics that contribute to improved employee performance. It distinguishes between threshold competencies (basic job requirements) and differentiating competencies (the abilities that distinguish superior from average performers). In this study, APP competencies are examined from both technical (agronomic knowledge, pest management, ICT use) and professional (communication, decision-making, empathy) perspectives (khan et al., 2024), (Magsi et al., 2024) and (Riaz et al., 2025)

These theories collectively contribute to the research by framing competence as both an individual resource that can be developed and a measurable outcome that influences organizational performance.
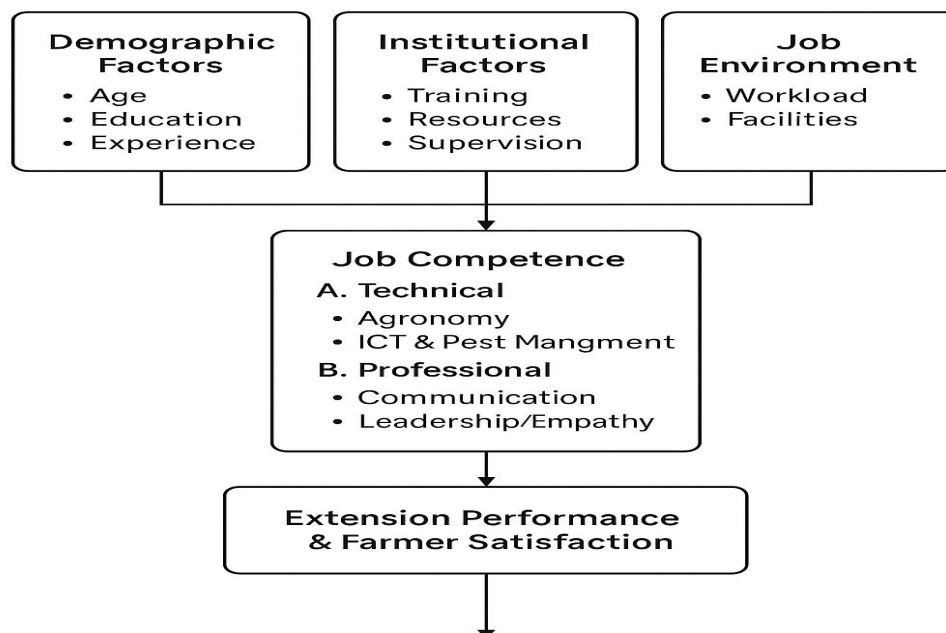
CONCEPTUAL FRAMEWORK

The conceptual framework for this study incorporates both individual and institutional characteristics that may influence job competence among Agricultural Extension Officers. The framework classifies job competence into two broad categories: technical competencies and professional (soft skill) competencies.

Table 1. Conceptual Framework Structure

Variable Type	Components
Independent Variables	- Demographic factors: Age, education, experience - Institutional support: Training received, access to resources, supervision - Job environment: Workload, facilities, job satisfaction
Competency Domains (Dependent Variables)	Technical Competence: • Knowledge of agronomy • Pest and disease management • ICT utilization • Climate-smart practices Professional Competence: • Communication skills • Problem-solving and decision-making • Empathy and interpersonal relationships • Leadership and motivation
Outcome	- Overall, Job Competence Level of AAPs - Performance Effectiveness - Policy Implications and Training Needs

Diagram: Conceptual Framework

Conceptual Framework

METHODOLOGY

1. Study Area

The study was conducted in five key districts of Punjab, Pakistan: Bahawalpur, Rahim Yar Khan, Lodhran, Muzaffargarh, and Bahawalnagar. These districts represent the three major administrative divisions:

- **Bahawalpur Division:** Encompassing Bahawalpur, Bahawalnagar Rahim Yar Khan and districts, known for their diverse agro-climatic conditions and significant cotton production.

- **Multan Division:** Represented by Lodhran district, which plays a pivotal role in the cultivation of cotton and other crops.

- **Dera Ghazi Khan Division:** Muzaffargarh district, area that are critical for agricultural innovation and rural development.

2. Sample Selection

The study's participants were chosen using a disproportionate random sampling technique. A total of 140 Agricultural Advisory Professionals (AAPs) were recruited from various administrative units in the selected districts. This method ensured that officers from all three divisions—Bahawalpur, Multan, and Dera Ghazi Khan—were appropriately represented, reflecting the region's diverse operational contexts and challenges.

3. Data Collection Instrument

A modified version of Reddy's (1998) scale was used to collect data on AAPs' job competence. The instrument was designed to assess ten distinct dimensions of job competence. Each dimension was rated on a 5-point scale, with responses ranging from "a great deal" to "not at all." The corresponding scores of 4, 3, 2, 1, and 0 were assigned, resulting in a quantitative measure of competence across dimensions. The scale was further refined to include both technical competencies (such as crop production, crop protection, marketing, and storage) and professional competencies (such as teaching and training methods, evaluation, supervision, planning and development, communication and presentation, and ICTs).

4. Rating Techniques

To ensure a comprehensive assessment of job competence, the study incorporated two distinct rating methods:

- **Self-Rating:** Agricultural Advisory Professionals provided self-assessments of their competence levels.

- **Superior Rating:** Immediate supervisors evaluated the performance of the officers.

The overall job competence (OJC) for each officer was determined using the following formula:

OJC = (Self-rating score + Superior rating score) / 2

This dual-rating approach facilitated a balanced evaluation, mitigating potential biases associated with single-source assessments.

5. Data Analysis

The data analysis involved several statistical techniques to interpret the collected information:

- **Descriptive Statistics:** Mean and standard deviation were calculated to understand the central tendency and dispersion of the competence scores.

- **Mean Index:** This was utilized for ranking the various job competence dimensions, identifying areas of strength and weakness among the AAPs.

- **Correlation Analysis:** The coefficient of correlation was computed to explore the relationships between selected independent variables (such as demographic factors, institutional support, and job environment) and the overall job competence levels.

These statistical tools provided insights into the performance patterns of the AAPs across different divisions and districts, ultimately contributing to recommendations for targeted capacity-building initiatives.

RESULTS AND DISCUSSION

Table 1: Category of Competence Level

This table categorizes competence levels (Low, Medium, and High) according to three rating types: self-rated, superior-rated, and overall-rated.

Category of Competence Level	Self-Rated	Superior Rated	Overall Rated

Low	21.66%	25.00%	32.50%
Medium	60.84%	70.00%	62.50%
High	32.50%	20.00%	20.00%

Table 1 shows that APPs were classified as low, medium, and high competence levels. According to the Self-rating, Superior rating, and overall job competence, 21.66 percent, 25 percent, and 32.50 percent of respondents were classified as having a low level of job competence. A medium level of job competence was reported by 60.84%, 70%, and 62.50% of respondents categorized as Self-rating, Superior rating, and overall job competence, respectively. Respondents demonstrated a high level of competence, with scores of 32.50 percent, 20 percent, and 20 percent for self-rating, superior rating, and overall job competence, respectively.

The results indicate that the majority of agricultural extension officers were classified as having medium competence, particularly in the self-rating and superior rating categories. This trend could be attributed to the officers' recent recruitment, limited experience, and the time constraints that come with juggling other departmental duties. Kusumalatha and Gowda (2020) supported the findings.

Table 2. Dimensions-wise analysis of job competence

Sl. No.	Dimension of Job Competence	Self-rating (AAPs)	Rank (Self-rated)	Superior rating (AASs)	Rank (Superior-rated)
1	Technical knowledge	85.43	4	80.27	6
2	Guidance	83.95	5	80.33	5
3	Communicative Ability	90.52	1	83.82	2
4	Adaptability	83.47	6	77.00	9
5	Self-Development	78.86	10	71.37	10
6	Creativity	81.56	9	79.96	7
7	Empathy	86.46	3	82.64	3
8	Mental Ability	81.47	8	79.36	8
9	Initiative	89.89	2	87.28	1
10	Judgment	83.55	7	80.95	4

Table 2 shows the mean self-rating and superior rating obtained by Agricultural Advisory professionals across the various dimensions of job competence. In the case of self-rating, Communicative Ability and Initiative had the highest mean score index, whereas Initiative and Empathy had the highest mean score when superior rating was used. Empathy was rated first, followed by Technical Knowledge, Guidance, Adaptability, Judgement, Mental Ability, Creativity, and Self-Development. Superior ratings

were given in the following order: empathy, judgement, guidance, technical knowledge, creativity, mental ability, adaptability, and self-development.

It was determined that Communicative Ability and Initiative were dominant in both self-rating and superior rating. This could be attributed to the posting of Agricultural Advisory professionals in their home communities, as they were familiar with the local language and took the initiative in coordinating farmers, organizing meetings, and implementing schemes with ease. Debnath et al. (2014) observed this trend.

In terms of self-rating, Self-Development and Creativity had the lowest average score index. This could be attributed to Agricultural Advisory professionals struggling to find enough time to improve their skills in the face of increasing work pressure, extensive documentation tasks, and a lack of appropriate training programs, all of which impede their ability to perform duties efficiently and effectively. The lowest mean score index for superior rating was obtained by Self-Development and Adaptability. This could be attributed to the work pressures that Agricultural Advisory professionals face, which limits the time they have for self-development. Furthermore, Agricultural Advisory professionals' lack of extensive job experience may prevent them from becoming fully acclimated to field situations, limiting their ability to provide information and address field problems effectively. According to the findings, that still exists room for advancement in Agricultural Advisory professionals' capability to readily adjust to practical situations while focusing on growth as an individual.

RELATION ANALYSIS

Table 3 presents the findings on the relationship between various personal and professional factors of Agricultural Extension Officers (AEOs) and their job competence. The analysis revealed several key insights into how these factors influence their competence in performing their duties.

Table 3. Relationship between Independent Variables and Job Competence

Sr. No.	Characteristics	Coefficients of Correlation (r)
A. Socio-personal Variables		
1	Age	0.347**
2	Education	0.319**
3	Job experience	0.247**
4	Training received	0.513**
5	Health	0.067
B. Psychological Variables		
6	Job stress	-0.310*
7	Level of aspiration	0.145
8	Achievement motivation	0.464**
9	Job commitment	0.309**
C. Communication Variables		

10	Mass media exposure	0.296**

The results in Table 3 indicate that various socio-personal factors of Agricultural Advisory Professionals (AAPs) —such as age, education, job experience, and training received—have a positive and significant relationship with their job competence. The positive correlation of 0.347 between age and job competence suggests that as AAPs age, their job competence increases. This is likely due to the accumulation of practical experience over time, which enhances an individual's ability to handle complex tasks and situations more effectively. Older AAPs may have had more opportunities to learn through hands-on experience, thus developing better problem-solving skills, communication strategies, and leadership qualities, which contribute to higher competence. Education, with a correlation coefficient of 0.319, also plays a critical role in improving job competence. Higher educational qualifications equip AAPs with technical knowledge, conceptual understanding, and analytical skills, all of which are vital for performing agricultural extension duties effectively. Educated AAPs are better prepared to handle new technologies and complex challenges in the field, thereby enhancing their overall competence. Similarly, job experience, with a coefficient of 0.247, reflects the positive relationship between practical experience and job competence. As AAPs gain more experience, they become more familiar with their duties, which increases their efficiency in executing tasks. Experienced AAPs are more adept at addressing issues faced by farmers and providing relevant advice, which is essential for agricultural extension services. Moreover, the training received showed a strong correlation of 0.513 with job competence, highlighting the importance of continuous professional development. AAPs who undergo more training sessions tend to acquire specialized skills and knowledge that are crucial for performing their duties efficiently and effectively. Well-trained AAPs are more capable of applying new agricultural practices and technologies in the field, improving their overall performance. On the other hand, health was found to have a positive but non-significant correlation of 0.067 with job competence. This weak relationship suggests that while good health is beneficial for job performance, other factors, such as experience, education, and training, play a more significant role in determining job competence. Organizational factors and workplace support systems may also contribute more to job performance than individual health alone, aligning with the observations made by Jayasingh (2019), who noted a relatively low impact of health on job competence in similar contexts.

The analysis of psychological variables in Table 3 reveals significant insights into the relationship between personal drive and job competence. Achievement motivation, with a strong positive correlation of 0.464, indicates that Agricultural Advisory Professionals (AAPs) with higher levels of achievement motivation tend to exhibit better job competence. These AAPs are driven to set and accomplish goals, often going beyond basic job expectations to excel in their roles. Their motivation pushes them to continuously improve their skills, leading to better performance in agricultural extension activities. Similarly, job commitment, with a correlation of 0.309, shows a significant positive relationship with job competence. AAPs who are deeply committed to their jobs are more likely to invest the effort required to stay updated on agricultural advancements, improve their skills, and meet the needs of farmers effectively. Their commitment fosters a sense of responsibility that directly influences their performance. However, job stress, with a negative correlation of -0.310, highlights the detrimental effects of stress on performance. High levels of stress arising from work pressures and heavy workloads hinder AAPs' ability to improve their skills and focus on their duties. Stress can lead to burnout, decreased productivity, and impaired decision-making, all of which negatively affect job competence. Similar findings were noted by Ferguson et al. (2012), who observed the negative impact of job stress on work performance. The level of aspiration showed a weak positive but non-significant correlation of 0.145 with job competence. This suggests that while AAPs with higher aspirations may aim to improve their skills and performance, their

aspirations alone are not enough to significantly enhance their competence. Other factors, such as training, experience, and motivation, are likely more influential in driving job competence.

The analysis of communication variables in Table 3 reveals that mass media exposure has a positive and significant relationship of 0.296 with job competence. This suggests that Agricultural Advisory Professionals (AAPs) who are regularly exposed to agricultural programs, news, and updates through mass media are better equipped with relevant knowledge and enhanced problem-solving skills, which contribute to higher job competence. Regular exposure to media content enables them to stay informed about the latest developments and innovations in the agricultural sector. This updated knowledge allows them to apply new techniques and strategies in their work, ultimately helping them assist farmers more effectively and efficiently in their agricultural practices.

CONCLUSION

The study's findings highlight the significance of several personal, psychological, and communication factors in determining the job competence of Agricultural Advisory Professionals. Age, education, job experience, and training received are all strongly associated with increased competence, demonstrating the importance of continuous learning and experience in the agricultural sector. Job stress, on the other hand, has a negative impact on competence, emphasizing the importance of stress management and creating a supportive work environment in order to improve performance.

Furthermore, the link between mass media exposure and job competence emphasizes the importance of staying current with agricultural developments via various communication channels. The findings suggest that improving training programs, reducing job stress, and increasing exposure to agricultural media can help Agricultural Extension Officers improve their job performance, ultimately benefiting farmers and the agricultural sector as a whole.

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